

Amendments to the Specification:

Please amend the paragraph starting at page 1, line 21 and ending at page 2, line 1 to read, as follows.

In addition, in the image forming apparatus using the electrophotographic process, in order to cope with various recording materials (media), for example, in the case in which an image is formed on cardboard, rough paper, OHT, or the like, it is desirable to perform a fixing step at a process speed lower than a normal image forming speed in order to secure a fixing property and image transparency.

Please amend the paragraph starting at page 3, line 23 and ending at page 4, line 8 to read, as follows.

However, in the case in which a structure for performing the charging step to the primary transfer step at the first process speed and performing the secondary transfer step and the fixing step at the second process step is adopted, it is necessary to adjust a positional relation between an image leading end and a recording material leading end (distance from the recording material leading end to the image leading end) according to fluctuations ~~fluctuation~~ in the number of rotations of a motor at the time when the process speed is changed, time lag at the time of building-up and building-down of rotation of the motor, and the like.

Please amend the paragraph starting at page 9, line 7 and ending at page 9, line 15 to read, as follows.

A resistance of the intermediate transfer belt 1 is preferably 1×10^6 to $1 \times 10^{12} \Omega \cdot \text{cm}$ in volume resistivity. As the intermediate transfer belt 1, a belt of urethane resin, fluorine resin, polyamide synthetic fiber resin, or polyimide resin, a belt of an elastic material such as silicone rubber or hydriin rubber, or a belt of a material which is obtained by dispersing carbon or conductive powder ~~power~~ to those materials to adjust resistance thereof can be used.

Please amend the paragraph starting at page 10, line 23 and ending at page 11, line 2 to read, as follows.

A photosensitive drum 11a rotates at a predetermined process speed (here, 0.117 m/s) in a direction of an arrow and is uniformly charged by a primary charger 12a. An electrostatic latent image is formed on the photosensitive drum 11a by a laser beam from a scanner 13a which is modulated by an image information signal sent from a host computer.

Please amend the paragraph starting at page 12, line 11 and ending at page 12, line 15 to read, as follows.

The intermediate transfer belt 1 is rotated in a direction of an arrow by the drive roller 1a in synchronization with the respective photosensitive drums 11a to 11d at a predetermined process speed (here, 0.117 m/s).

Please amend the paragraph starting at page 13, line 6 and ending at page 13, line 11 to read, as follows.

When the intermediate transfer belt 1 has passed the primary transfer nip between the intermediate transfer belt 1 and the photosensitive drum 11d, the full color image is borne [[born]] on the intermediate transfer belt 1, and the primary transfer step is completed.

Please amend the paragraph starting at page 14, line 26 and ending at page 15, line 2 to read, as follows.

In the first embodiment, a DC motor is used for a drive motor 30 of the intermediate transfer member 1. The drive roller 1a is driven to rotate in a direction of an arrow.

Please amend the paragraph starting at page 19, line 13 and ending at page 20, line 9 to read, as follows.

At the time of initial rotation such as the time of input of a power supply, it is possible to carry out the paper feeding timing acquisition sequence at an arbitrary timing. However, in this embodiment, the paper feeding timing acquisition sequence is carried out at the time of initial rotation and after the end of the initial sequence before the image formation. Note that the initial rotation means an operation for rotating the photosensitive drum 11 in order to charge the surface of the photosensitive drum 11 to a predetermined potential such that an image forming operation becomes possible. Further, the initial sequence is a sequence which is performed at the time of execution of the initial rotation, and the paper feeding timing acquisition sequence is executed after the end of the initial sequence. In a state in which the motor is driven at the first process speed after the end of

the initial sequence, the CPU 31 starts the paper feeding timing acquisition sequence. First, after starting detection of the number of rotations of the motor, the CPU 31 switches the speed of the motor from the first process speed to the second process speed after a fixed time.

Please amend the paragraphs starting at page 23, line 5 and ending at page 24, line 10 to read, as follows.

Note that, in the case in which a pulse motor (stepping motor) is used for the drive motor 30 of the intermediate transfer belt 1, since fluctuations ~~fluctuation~~ in rotation, building-up, and building-down of the motor can be controlled to some extent by pulse control, it is relatively easy to adjust a positional relation between an image leading end and a paper leading end. However, for example, in the case of adopting a DC motor, fluctuation in a rotation speed during building-up and building-down of the motor at the time of process speed switching is increased in accordance with individual differences due to a manufacturing error of the motor, fluctuations ~~fluctuation~~ in driving torque due to an environment in which the image forming apparatus is placed, fluctuations ~~fluctuation~~ in driving torque due to endurance, and the like. Thus, it is very difficult to adjust the positional relation between the image leading end and the recording material leading end.

Therefore, measurements are taken so that it becomes possible to adjust a positional relation between an image leading end and a recording material leading end by, for example, providing means which detects the number of rotations of a drive motor for driving to rotate an intermediate transfer member, detecting the number of rotations during building-down of the motor at the time of process speed switching, calculating fluctuations

~~fluctuation~~ in a moving distance of the intermediate transfer member which occurs at the time of building-down, and calculating a timing for feeding a recording material to a secondary transfer position on the basis of a result of the calculation.

Please amend the paragraph starting at page 25, line 13 and ending at page 25, line 26 to read, as follows.

In short, according to the first embodiment, the paper feeding timing acquisition sequence is executed in the initial sequence at the time of input of a power supply to calculate paper feeding timing. Thus, it becomes possible to provide an image forming apparatus without the necessity of detection and control of the number of motor rotations and a process speed at the time of every image formation, and in particular, without limitation on an apparatus structure and the like. As a result, it becomes possible to obtain a satisfactory image with a paper leading end registration regardless of individual differences, environmental fluctuations, ~~fluctuation~~, and endurance fluctuations ~~fluctuation~~ of a motor.

Please amend the paragraph starting at page 28, line 17 and ending at page 29, line 3 to read, as follows.

As described above, according to the present invention, the paper feeding timing acquisition sequence by the intermediate transfer belt is executed in the initial sequence at the time of input of a power supply to calculate paper feeding timing, and the sensor for concentration control is used for detecting means. Thus, it becomes unnecessary to provide an image forming apparatus with a simpler structure and, in particular, without limitation

on an apparatus structure and the like. As a result, it becomes possible to obtain a satisfactory image with a paper leading end registration regardless of individual differences, environmental fluctuations, ~~fluctuation~~, and endurance fluctuations ~~fluctuation~~ of a motor.

Please amend the paragraph starting at page 31, line 3 and ending at page 31, line 16 to read, as follows.

Consequently, as in the first embodiment, the paper feeding timing acquisition sequence is executed in the initial sequence at the time of input of a power supply to calculate paper feeding timing. Thus, it becomes possible to provide an image forming apparatus without the necessity of detection and control of the number of motor rotations and a process speed at the time of every image formation, and in particular, without limitation on an apparatus structure and the like. As a result, it becomes possible to obtain a satisfactory image with a paper leading end registration regardless of individual differences, environmental fluctuations, ~~fluctuation~~, and endurance fluctuations ~~fluctuation~~ of a motor.

Please amend the paragraph starting at page 34, line 6 and ending at page 34, line 19 to read, as follows.

The laser diode 10 in the scanner unit 205 generates a laser beam, which is modulated by a video signal generated by the video controller 203, to scan the surface of the photosensitive drum 301. On the other hand, the photosensitive drum 301 is rotated in a direction indicated by an arrow at a constant speed by a drum motor (not shown). The

surface of the photosensitive drum 301 is uniformly charged by a charging roller 305. The laser beam, which is modulated by the video signal generated by the video controller 203, scans this surface, whereby an electrostatic latent image is formed. The electrostatic latent image is visualized as a toner image by the developing device 309.

Please amend the paragraph starting at page 38, line 17 and ending at page 39, line 2 to read, as follows.

As shown in FIG. 10, in an image forming apparatus which uses the DC motor 401 (DC brushless motor) as a rotation drive motor for the photosensitive drums 301 to 304 and the ITB 213 and uses another DC motor 500 as a motor for paper feeding and conveyance, in the case in which a speed of the DC motor 401 is changed from the first speed V1 to the second speed V2, there are ~~[[is]]~~ large fluctuations ~~fluctuation~~ of time in which the speed changes from the first speed V1 to the second speed V2 depending upon individual differences, differences in a change in motor load and a change in a motor drive voltage, and the like of the DC motors 401 and 500.

Please amend the paragraph starting at page 52, line 9 and ending at page 52, line 18 to read, as follows.

Note that, in the above-mentioned embodiments, the paper feeding timing acquisition sequence is executed in the initial sequence at the time of input of a power supply. However, the timing for the paper feeding timing acquisition sequence is not limited to this, and the paper feeding timing acquisition sequence can be executed at the

time of actuation of a concentration control sequence, at the time of actuation of a registration adjustment sequence, or at an arbitrary timing.